King County

Department of Transportation

Metro Transit Division
Community Relations and Communications
KSC-TR-0824
201 South Jackson Street
Seattle, WA 98104-3856

June 17, 2008

The Honorable Reagan Dunn, Chair
Regional Transit Committee
Metropolitan King County Council
King County Courthouse Room 1200
Seattle, WA 98104

Dear Councilmember Dunn:

The King County Transit Advisory Committee (TAC) is appointed by the King County
Executive and confirmed by the Metropolitan King County Council to provide advice on
policy issues affecting King County Metro Transit. We represent bus riders who live in
every part of the county and use a variety of transit modes. In our annual January
planning session, the TAC identified the improvement of the Metro Online Website as a
top priority for the committee in 2008. We formed a subcommittee to research the issue
in detail, and are now recommending that the Council provide the funding necessary to
redesign the Metro Transit Website.

Background
As King County struggles to reduce its carbon footprint, mitigate traffic and pollution,
and accommodate a record number of new riders, making transit convenient and
transparent is essential to consolidating ridership gains. With over 18,000 visits per day,
Metro's Website is the face of the agency. More riders and potential riders come into
contact with the Website than with any single bus stop, vehicle, or employee. It is a
source of information—for planning trips and for learning how the system works—as
well as a reflection of Metro and its services.

While many comparably sized transit agencies update their sites every two years, Metro's
site has remained largely unchanged for half a decade. Since Metro's Website was
created, Internet usage has skyrocketed and web usability has become a requirement for
successful sites.

Though Metro's Website provides the basic functionality and information users need, it is
not easy to use by current Web standards and may inadvertently reflect a negative image
of the agency.

Areas of concern

While we have many specific concerns about the site's design and functionality, most of them can be grouped into three categories. Details for each category are provided at the end of this letter. We have also attached an appendix with a more comprehensive list of suggestions.

Organization of information

Currently the site is organized around a static list of categories, all of which are treated with equal importance. For example, "bus transportation," a huge category of rider-based information and likely the site's biggest draw, is listed in the left navigation with the same weight as the less-critical Adopt-A-Stop and bus shelter mural programs.

The site would be improved by organizing with riders in mind, emphasizing common user tasks (such as planning trips and viewing schedules) and deemphasizing information that is infrequently accessed. (Note: A strong search functionality and well-organized site can make this information easy to find for those who do need it.)

Amount and quality of text

Metro's site contains a great deal of unnecessary and unclear text—several times the number of pages and words of comparable transit sites. The text should be clear, concise, and focused on the specific task the user is trying to accomplish.

Trip Planner

Trip Planner is the most-used feature on Metro's site, yet it is difficult to access from the home page, difficult to use, and prone to unnecessary errors. Though the planner contains data from three counties, it does not accept addresses unless they are formatted in a very specific, arbitrary way and does not allow users to enter cities. This results in unnecessary errors, extra steps, and, most importantly, frustrated and confused riders who may abandon their well-intentioned attempts to try traveling by public transportation.

Recommendations

After several meetings with Metro's Website staff, we believe that the most effective course of action is to completely redesign the site's user interface rather than to make incremental improvements. The redesign should include:

A review by a third-party professional

Because Metro's IT department has more work than its small staff can handle, and because none of Metro's IT or Marketing staff has been formally trained in Web usability, we feel it is critical for a Web design/usability professional to manage the redesign.

Rider input

Successful Websites are those that meet the needs of the sites' users. The redesign should

include a significant amount of input from Metro riders—through surveys, focus groups, and direct usability studies.

Ongoing feedback
The site should provide a link—available from every page—for users to provide feedback about their experiences. This allows all users, even those not included in surveys or studies, to report problems and submit suggestions, and provides an opportunity for ongoing site improvements.

The TAC also believes the site should be designed so it can be accessed with handheld devices such as PDAs and mobile phones so visitors can get crucial transit information while they are away from their computers.

Expected Outcome
Because Metro's Website is the "face" of Metro, a well-designed, easy-to-use site will reflect positively on the agency. This positive impression will attract new riders, improve rider satisfaction, and increase receptiveness to future funding requests. It also aligns with the county's efforts toward a more sustainable future.

For these reasons, the King County Transit Advisory Committee strongly urges the King County Council to fully fund improvements to the Metro Website.

Sincerely,

Miranda Leidich, Chair
King County Transit Advisory Committee
Approved unanimously on June 10, 2008

Areas of Concern (details from page 2)

Organization of information:
- Organize the home page according to user tasks.
- Provide Trip Planner input fields (From, To, When) on the home page.
- Ensure that the system map is accessible from the home page.
- Provide easy access to MyBus.
- Reduction/improvement of text - minimize instructional and explanatory text
- Include consistently placed links to online help where relevant
- Provide links for user feedback on every page

Amount and quality of text
- Reduce user interface and help text by improving site/page design. Forms should be self-explanatory.

Trip Planner
- Format Trip Planner output so that it is printer friendly and standard results (trips that require a single transfer) fit on one page.
- *Change Trip Planner address entry to*:
  - Allow users to specify a city
  - Accept complete address in the same format as major mapping sites
  - Provide access to a list of major landmarks (Long-term)
- *Change Trip Planner results to:*
  - Make it easy to compare results. Possibility: Include a summary table comparing the itineraries.
  - Specify the exact location of a stop (for example, "SW, mid-block").
  - Offer an option to see the next (and previous?) scheduled trips. (Long-term)

The TAC Website Subcommittee found the following transit Websites to be usable and logically organized with riders as the target audience. A few outstanding features:
- Easy navigation
- Trip planners on the home page
- Multi-language feature on Munich MVV
- Accessible and quality transit system maps
- The amount of text on pages
- Rider-relevant information.

We talked to staff members at four of the seven Websites and asked five simple questions based on their current sites. The answers to those questions are listed below. They are direct quotes from e-mail exchanges between TAC subcommittee members and transit agency staff members.

Usable Websites

- Munich MVV: http://www.mvv-muenchen.de/en/
- LA County MTA: http://www.metro.net/
- Portland TriMet: http://trimet.org/ - See benchmark responses
- SF Muni: http://www.sfmta.com/ - See benchmark responses
- Vancouver BC Translink: http://www.translink.bc.ca/ - See benchmark responses
- Sound Transit: http://soundtransit.org/ - See benchmark responses
- Community Transit: http://www.commtrans.org/

Questions to peer transit agencies

1) **Who created (or last redesigned) the web site - a professional web design company or internal staff? When?**

   a. *BC Translink:* The TransLink web site was re-designed by a professional web design company, working closely with TransLink Marketing. However, since we have the required development skill-set in-house; and since the finished product would have to be integrated with our content management system (CMS), the Web design company was asked to assist only with the information architecture (IA) and design. Development and integration were done in-house.

   b. *Portland Trimet*: We have an in-house team of about 15 writers, designers, programmers and coordinators who design and maintain the website. This is an interdivisional team but headed up by the Marketing Department with robust cooperation from our IT and scheduling departments. The web is not their only job, but in some cases it is about 80%.

   c. *Sound Transit*: www.soundtransit.org was re-launched approximately 3 1/2 years ago. It took about 4 months (that's a guess) for the initial needs assessment, and then about 1 year for redesign and implementation. ST staff worked with a contracted firm to develop the new design. A Content Management System was introduced at the same time which added to the complexity of the project. During the assessment phase, a new ST position was created in the Corporate Communications Dept (Web Developer/Web Producer) and that employee oversaw the final design of the website, content migration and implementation of the site and the CMS. A lot of his time was spent working out the

procurement/contracting issues with the design and CMS firms, also working with our IT to procure new servers, etc.

d. *San Franciso MTA Response:* Internally created, it was re-launched in 2007.

2) **How many programmers/designers did it take to design the site, and roughly how long?**

a. *BC Translink:* A team of about 3 or 4 (from the Design Co.) worked on the IA and design with TransLink Marketing. They provided the design as a Photoshop file (.psd). The TransLink Trip Planner/ Schedule Lookup web application was created by Trapeze Software. They provided a bare-bones user-interface which was also re-designed in the same manner (a design team working closely with marketing). I did the development work; programming and integrating both designs.

b. *Portland Trimet*: The last redesign (3 years) of the site took about 4 months, all in house. All web development team members worked on the redesign at various points. The Trip Planner and TransitTracker are both in-house applications as is the Interactive Map (which is in process of redesign by the GIS team).

c. *Sound Transit:* The web design firm (and their subcontractors) created the style sheets and built templates in the Content Management System. Internally, the Web Developer working with an IT group (maybe 3 people) got the new site up and running, and then a team was formed to first test the site and then maintain the site content.

d. *San Franciso MTA:* For site structure, one person, for content, 10-12 employees using Contribute.

3) **What kind of usability tests, if any, were done on the site and the trip planner? Formal testing in a usability lab or informal testing in-house? If the latter, how were test users recruited?**

a. *BC Translink:* The design Co. had its own process for usability testing of the UI/IA for the TransLink site (excluding the Trip Planner). Unfortunately I was not involved, so I am unable to comment. However, we did conduct our own informal, in-house usability test for the Trip planner. We created a series of questions asking users to perform tasks, utilizing all functions of the Trip Planner/ Schedule Lookup. We recruited approximately 40 people from different areas within the organization, different ages, some with little to no experience using the system, and some that had used it before. Two observers watched and made notation as they worked through the tasks, with no assistance. Then, an interview was conducted with the person to find out where they had difficulty and what their thoughts were. After each test/interview, the observers met to formalize their findings and notes. The results were compiled and trends were identified. The final usability report was used in re-structuring existing functionality (working with Trapeze) and was also given to the design team when we began re-designing the UI.

b. *Portland Trimet*: We use Survey Monkey extensively for various sections of the website. We had a usability study done about 5 years ago with a professional group, focus groups, etc. We have an informal group of about 700 people who have

volunteered to test new applications and new designs. They are members of our email subscriber list category: feedback forum.

c. *Sound Transit:* No formal testing in a lab. Links went out to selected internal people asking them to click around the new site and look for bugs, broken links, functional problems, missing content. First testers included those who had been involved in the design phase and people with high stakes in the project (like Customer Service, Board Administration, Community Outreach staff, Marketing staff) The second wave of testing opened it up to all ST staff. At the same time we were testing and learning to use the CMS. That group was people who would be updating content: the newly formed Web team as 'power users' and also people like the customer service folks who learned how to post rider alerts, etc

d. *San Francisco MTA:* No, however, we made many changes based on email from the public and comments from employees.

4) **Who maintains the web site (an external company or full-time Tri-Met staff)? How many people? How often is it updated?**

   a. *BC Translink:* The TransLink site (excluding the Trip Planner) is managed through an integrated CMS application. Some of the content is managed through this system by the individual departments. However, some departments have not yet adapted to the CMS, and instead submit their content update request to a Web Administrator (1). Due to the size of the site, updates can be very frequent. The Trip Planner data is managed by two Data Administrators (2) and one Data Analyst (1) (constantly testing data integrity). The application itself is maintained by a System Support Analyst (1) - working with Trapeze, updates, patches etc. (The web app is only one portion of the Trapeze suite of products we are using). Myself (Web Developer) (1), and a Web Analyst (1) support all web-based systems throughout the organization including the management of our CMS (serving multiple domains), and the Trapeze(Web) UI. Total people: 7 (but most of these people are supporting multiple systems)

   b. *Portland Trimet:* Full-time TriMet staff maintain the website 24/7. As webmaster, I carry a pager and am responsible for any emergency postings and email alerts after hours and on weekends. During the day I post new content and update other content. All that has gone through a review process by the various coordinators for each section. I have 3 backups for emergency postings and 3 for daily postings. The website is updated daily (sometimes hourly) and our dynamic service alerts page is updated every five minutes. TransitTracker is automatically refreshed as well.

   c. *Sound Transit:* All content updates are done by ST staff. There is one full-time Developer (position is vacant), a Web Producer (75% FTE), and a team of 5 people in Corporate Communications who all do some work on the Web but mostly have other duties. This team meets weekly with the Marketing Manager (who oversees the web program) to discuss projects. There are also about 5 people in other Departments who have training and to use the CMS for very specific tasks. For example, posting Rider alerts is done by Customer Service staff. The website is updated daily, usually multiple times.

   d. *San Francisco MTA Response:* The Marketing group held internal planning meetings.

5) How many visits does the web site receive per day?

> a. *BC Translink:* Daily - according to recent statistics The TransLink site: Average - 26,000 unique visits, 58,000 page views. The Trip Planner: Average - 34,000 unique visits, 209,000 page views
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> b. *Portland Trimet:* In the month of January 2008, the website got 636,062 visits, averaging over 20,000 per day. Our TransitTracker by phone (real time arrivals on your cell phone) got over a million calls in January.
>
> c. *Sound Transit:* Weekend days around 2,500 - 3,000 visits. Weekdays around 5,500 - 6,000
>
> d. *San Francisco MTA:* Our latest log shows about 24,000 page views per day for January, a slow month

References:
Vancouver Translink: http://www.translink.bc.ca/

From: custrel@translink.bc.ca [mailto:custrel@translink.bc.ca], Miranda Leidich
[mailto:miranda.leidich@gmail.com]
Sent: Wednesday, February 13, 2008 11:38 AM
To: Cheung, Tim
Cc: Hill, Chris; Wong, Gladys
Subject: 238558 - Web Design Inquiry - General complaint

Portland TriMet: http://trimet.org/

From: TriMet Webmaster <Webmaster@trimet.org>
Date: Feb 12, 2008 12:03 PM
Subject: TriMet's Website...
To: buschick@gmail.com

Sound Transit: http://soundtransit.org/

From: Dice, Jennifer [mailto:jennifer.dice@soundtransit.org]
Sent: Friday, February 08, 2008 10:02 AM
To: Anirudh Sahni
Subject: RE: Who maintains ST's web site?

SF Muni: http://www.sfmta.com/

From: Miranda Leidich [mailto:miranda.leidich@gmail.com]
Sent: Wednesday, February 06, 2008 11:13 AM
To: Belov, Charles
Subject: Benchmark questions